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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
09/920,710	08/03/2001	Dunling Li	TI-33330 (1.109US)	5075
23494	7590	12/06/2005	EXAMINER	
TEXAS INSTRUMENTS INCORPORATED P O BOX 655474, M/S 3999 DALLAS, TX 75265			OPSASNICK, MICHAEL N	
			ART UNIT	PAPER NUMBER
			2655	

DATE MAILED: 12/06/2005

**Determination of Patent Term Adjustment under 35 U.S.C. 154 (b)**  
(application filed on or after May 29, 2000)

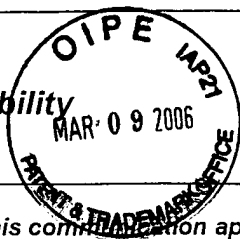
The Patent Term Adjustment to date is 978 day(s). If the issue fee is paid on the date that is three months after the mailing date of this notice and the patent issues on the Tuesday before the date that is 28 weeks (six and a half months) after the mailing date of this notice, the Patent Term Adjustment will be 978 day(s).

If a Continued Prosecution Application (CPA) was filed in the above-identified application, the filing date that determines Patent Term Adjustment is the filing date of the most recent CPA.

Applicant will be able to obtain more detailed information by accessing the Patent Application Information Retrieval (PAIR) WEB site (<http://pair.uspto.gov>).

Any questions regarding the Patent Term Extension or Adjustment determination should be directed to the Office of Patent Legal Administration at (571) 272-7702. Questions relating to issue and publication fee payments should be directed to the Customer Service Center of the Office of Patent Publication at (703) 305-8283.

# Notice of Allowability



Application No.

09/920,710

Examiner

Michael N. Opsasnick

Applicant(s)

LI, DUNLING

Art Unit

2655

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address--

All claims being allowable, PROSECUTION ON THE MERITS IS (OR REMAINS) CLOSED in this application. If not included herewith (or previously mailed), a Notice of Allowance (PTOL-85) or other appropriate communication will be mailed in due course. **THIS NOTICE OF ALLOWABILITY IS NOT A GRANT OF PATENT RIGHTS.** This application is subject to withdrawal from issue at the initiative of the Office or upon petition by the applicant. See 37 CFR 1.313 and MPEP 1308.

1. ☒ This communication is responsive to 9/9/2005.
2. ☒ The allowed claim(s) is/are 6, 7 and 9-13.
3. ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
  - a) ☐ All b) ☐ Some\* c) ☐ None of the:
    1. ☐ Certified copies of the priority documents have been received.
    2. ☐ Certified copies of the priority documents have been received in Application No. \_\_\_\_\_.
    3. ☐ Copies of the certified copies of the priority documents have been received in this national stage application from the International Bureau (PCT Rule 17.2(a)).

\* Certified copies not received: \_\_\_\_\_.

Applicant has THREE MONTHS FROM THE "MAILING DATE" of this communication to file a reply complying with the requirements noted below. Failure to timely comply will result in ABANDONMENT of this application.  
**THIS THREE-MONTH PERIOD IS NOT EXTENDABLE.**

4. ☐ A SUBSTITUTE OATH OR DECLARATION must be submitted. Note the attached EXAMINER'S AMENDMENT or NOTICE OF INFORMAL PATENT APPLICATION (PTO-152) which gives reason(s) why the oath or declaration is deficient.
  5. ☒ CORRECTED DRAWINGS (as "replacement sheets") must be submitted.
    - (a) ☐ including changes required by the Notice of Draftsperson's Patent Drawing Review (PTO-948) attached
      - 1) ☐ hereto or 2) ☐ to Paper No./Mail Date \_\_\_\_\_.
    - (b) ☒ including changes required by the attached Examiner's Amendment / Comment or in the Office action of Paper No./Mail Date \_\_\_\_\_.
- Identifying indicia such as the application number (see 37 CFR 1.84(c)) should be written on the drawings in the front (not the back) of each sheet. Replacement sheet(s) should be labeled as such in the header according to 37 CFR 1.121(d).
6. ☐ DEPOSIT OF and/or INFORMATION about the deposit of BIOLOGICAL MATERIAL must be submitted. Note the attached Examiner's comment regarding REQUIREMENT FOR THE DEPOSIT OF BIOLOGICAL MATERIAL.

## Attachment(s)

1. ☐ Notice of References Cited (PTO-892)
2. ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
3. ☐ Information Disclosure Statements (PTO-1449 or PTO/SB/08), Paper No./Mail Date \_\_\_\_\_
4. ☐ Examiner's Comment Regarding Requirement for Deposit of Biological Material
5. ☐ Notice of Informal Patent Application (PTO-152)
6. ☐ Interview Summary (PTO-413), Paper No./Mail Date \_\_\_\_\_
7. ☒ Examiner's Amendment/Comment
8. ☒ Examiner's Statement of Reasons for Allowance
9. ☒ Other Drawing Sheet

W. R. YOUNG  
PRIMARY EXAMINER

Art Unit: 2655



## DETAILED ACTION

### EXAMINER'S AMENDMENT

1. An examiner's amendment to the record appears below. Should the changes and/or additions be unacceptable to applicant, an amendment may be filed as provided by 37 CFR 1.312. To ensure consideration of such an amendment, it MUST be submitted no later than the payment of the issue fee.

Authorization for this examiner's amendment was given in a telephone interview with Mr. Joseph Zito on November 25, 2005. The application has been amended as follows:

In Figure 1, insert the label "Prior Art".

### *Allowable Subject Matter*

2. Claims 6,7,9-13 are allowable over the prior art of record.
3. The following is a statement of reasons for the indication of allowable subject matter:  
As per independent claim 10, the recited claim limitations pertaining to calculating a noise identification threshold and a voice identification threshold, wherein the values of the differing types of energy calculations used to determine these thresholds are the values that are within a range of initial calculated average value, is not explicitly taught by the prior art of record.

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As per independent claim 6, the recited limitations pertaining to counting the number of consecutive times the G.729B VAD detects voice frames, assigning a count to a counter variable base on the voice frames, and producing a specific event when the second counter reaches a predetermined variable, all in conjunction with a first counter, is not explicitly taught by the prior art of record.

A typical prior art, as noted below in Benyassine et al ("ITU-T Recommendation G.729 Annex B: A Silence Compression Scheme for Use with G.729 Optimized for V.70 Digital Simultaneous Voice and Data Applications", IEEE Communications Magazine, September 1997, pp 64-73), teaches the concept of using multiple energy measurement values (pp 66, bottom of col. 1 to the end of col. 2), however, Benyassine et al does not explicitly disclose the calculation as claimed in claim 10 as noted above. Benyassine also teaches tracking the number of instances of noise/silent periods in the G.729B VAD (pp 67, col. 1 lines 44-60; and pp 68, col. 1, bottom – DTX update counter); however, Benyassine et al does not explicitly disclose a second counter tracking the voice frames in a G.729B VAD, in conjunction with a first counter. Furthermore, it would not have been obvious to one of ordinary skill in the art of VAD to modify the teachings of the prior art of record to obtain the recited claim limitations of claims 8 and 10 as noted above.

Claims 9,11-13 are allowable over the prior art of record because these claims depend from claim 8,10 respectively, which have been determined to be allowable over the prior art of record.

Any comments considered necessary by applicant must be submitted no later than the payment of the issue fee and, to avoid processing delays, should preferably accompany the issue

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fee. Such submissions should be clearly labeled "Comments on Statement of Reasons for Allowance."

4. Any inquiry concerning this communication or earlier communications from the examiner should be directed to Michael Opsasnick, telephone number (571)272-7623, who is available Tuesday-Thursday, 9am-4pm.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Mr. Wayne Young, can be reached at (571)272-7582. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free).

mno  
11/19/05



W. R. YOUNG  
PRIMARY EXAMINER



IN THE UNITED STATES PATENT AND TRADEMARK OFFICE

Application No. : 09/920,710  
Applicant : Dunling Li, et al.  
Filed : 08/03/2001  
TC/A.U. : 2655  
Examiner : Michael N. Opsasnick  
Title : BACKGROUND NOISE ESTIMATION METHOD FOR AN IMPROVED  
G.729ANNEX B COMPLIANT VOICE ACTIVITY DETECTION CIRCUIT  
Docket No. : TI-33330  
Customer No. : 23494

LETTER TO THE OFFICIAL DRAFTPERSON

Commissioner for Patents  
P.O. Box 1450  
Alexandria, VA 22313-1450

**MAILING CERTIFICATE UNDER 37 C.F.R. §1.8(a)**

I hereby certify that the above correspondence is being deposited with the U.S. Postal Service as First Class Mail in an envelope addressed to: Commissioner for Patents, Alexandria, VA 22313-1450, on the date below.

*Connie Scourten*  
Connie Scourten

*03/06/06*  
Date

Sir:

Enclosed are seven (7) replacement sheets of formal drawings, including FIGS. 1-8C, for the subject case. Please charge this fee to our deposit account 20-0668. **This form is submitted in triplicate.**

Respectfully submitted,

*Abdul Zindani*  
Abdul Zindani  
Attorney for Applicant(s)  
Reg. No. 46,091

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